

Date: Fri, 26 Nov 93 04:30:32 PST
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #114
To: Ham-Homebrew

Ham-Homebrew Digest Fri, 26 Nov 93 Volume 93 : Issue 114

Today's Topics:

210XL Bearcat Scanner to read 1012Mhz?
 receive antenna switching
 schematic for audio T pad?
single sideband generation (2 msgs)
 swr protection project

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 23 Nov 1993 20:33:59 -0500
From: panix!not-for-mail@uunet.uu.net
Subject: 210XL Bearcat Scanner to read 1012Mhz?
To: ham-homebrew@ucsd.edu

In article <1993Nov23.123957.258333@hemlock.cray.com>,
Jim Knoll <n3022@cray.com> wrote:

>I am posting on behalf of my father, a retired
>news photographer who was out there in the action
>almost every day. Since retirement, most of the
>"action" he has experienced has been through
>shortwave (and scanner) monitoring. He has listened to
>the local police dept for years on 154Mhz. Now the
>city hall has purchased 900Mhz equipment and have left
>him in the dark.
>
>Rather than buying a new scanner, my father is wondering
>if there is a converter that will double the upper-end

```
>frequency capability of his 210XL Bearcat Scanner from
>512Mhz to 1012Mhz. Has anyone run across one?
```

Suggest that you post in `alt.radio.scanner` and `rec.radio.scanner`

GRE America makes two such boxes; one for handheld and one for desktop scanners. They don't double the coverage range but downconvert 810-950 to 410-550. You can call them at 415-591-1400 or 800-233-5973.

Frankly, I'd just buy a new scanner having 800 MHz capability. There are newer devices having much better performance than the old BC scanners. Again, look on the two scanner newsgroups and you'll get an avalanche of recommendations.

```
--
Mike Schuster      |          schuster@panix.com | 70346.1745@CompuServe.COM
-----          | schuster@shell.portal.com | GEnie: MSCHUSTER
```

Date: 19 Nov 1993 17:26:59 GMT
From: noc.near.net!sunfish.hi.com!brainiac.hi.com!user@uunet.uu.net
Subject: receive antenna switching
To: ham-homebrew@ucsd.edu

I'm trying to build a two-position receive-only antenna switch. Currently, I'm using a KUP-style DPDT relay to switch between the two inputs. The unselected input is terminated with a 51 ohm metal-film resistor. Lead lengths are reasonably short. However, I seem to get only about 30-40 dB isolation from the unselected input. 'd like to get at least 60 dB isolation. Anyone have any suggestions on improving the situation?

Thanks,
-Steve

Steve Byan
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1601 Trapelo Road
Waltham, MA 02154

internet: steve@hicomb.hi.com

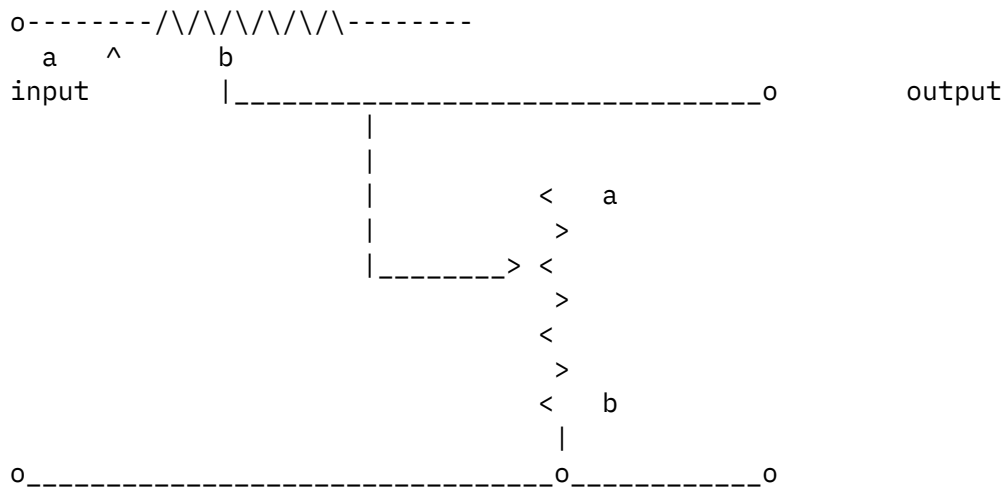
phone: (617) 890-0444
FAX: (617) 890-4998

Date: 24 Nov 1993 18:48:03 GMT
From: olivea!news.bu.edu!buphy.bu.edu!eburton@uunet.uu.net
Subject: schematic for audio T pad?
To: ham-homebrew@ucsd.edu

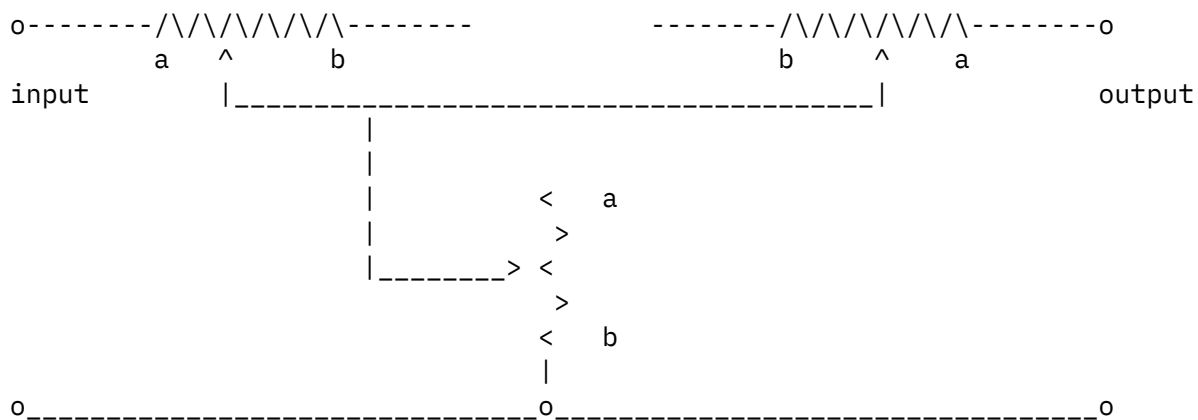
mac@cis.ksu.edu (Myron A. Calhoun) writes:

>Can anyone please show me the schematic of a "T pad" for remote-
 >control. I know that a T pad uses at least two variable pots
 >and probably keeps the input impedance relatively constant, but
 >I haven't been able to re-invent the circuit by diddling around.

Here is an L-pad. The pots are ganged (ie, they have the same shaft)
 and are set up so that impedance seen at the input remains constant.
 The letters "a" and "b" indicate where the wipers are for (a) maximum output
 and (b) minimum output.



And below is a T-pad, which uses three ganged pots to keep the input
 and output impedance constant while varying the voltage divider ratio:



I think that's the basic idea anyway. I hope this helps.

-Erich

Erich Burton -- eburton@buphy.bu.edu
Undergraduate Laboratory Coordinator
Boston University Physics Department

Date: Fri, 19 Nov 1993 19:54:34 GMT
From: dog.ee.lbl.gov!agate!howland.reston.ans.net!math.ohio-state.edu!sdd.hp.com!
col.hp.com!srigenprp!alanb@network.ucsd.edu
Subject: single sideband generation
To: ham-homebrew@ucsd.edu

Mark 'Rain Man' Dennehy (mdennehy@unix2.tcd.ie) wrote:

: Newbie Question Time :
: Why bother to eliminate the offending sideband in the
: transmitter at all ?

: If the RX is good, It shouldn't be confused when you tell it to listen
: to an ssb signal and then tune it to a DSB one, should it ?
: Or is the idea of transmitting DSBSC not a good one (ie. wastes EM
: bandwidth) ?

DSB suppressed carrier is a perfectly viable method that is indeed
compatible with SSB receivers. There are two main problems:

1) It requires twice the average power and 4 times the peak power to
get the same power in a sideband. Since most PA stages are peak-power
limited, you effectively lose 6 dB (4x) when received on an SSB receiver.

2) It takes up twice the bandwidth, causing unnecessary interference.

Both of the above reasons become less important if you are running QRP
(low power). Also, QRP rigs tend to be smaller and simpler, so the
relative simplicity of a DSB rig may be the deciding factor.

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Date: Fri, 19 Nov 1993 20:52:00 GMT
From: dog.ee.lbl.gov!agate!howland.reston.ans.net!pipex!uknet!EU.net!ieunet!tcdcs!

news.tcd.ie!unix2.tcd.ie!mdennehy@network.ucsd.edu
Subject: single sideband generation
To: ham-homebrew@ucsd.edu

In <CGr8My.8n2@srngenprp.sr.hp.com> alanb@sr.hp.com (Alan Bloom) writes:

>: Why bother to eliminate the offending sideband in the
>: transmitter at all ?

>: If the RX is good, It shouldn't be confused when you tell it to listen
>: to an ssb signal and then tune it to a DSB one, should it ?
>: Or is the idea of transmitting DSBSC not a good one (ie. wastes EM
>: bandwidth) ?

I should really have stated here that I was thinking along the lines of
QRP operation, where, as has already been pointed out, the reduced
complexity can be a useful trade-off. That'll teach me to type clearly!
:-)

Blue Skies ...
Mark.

--

Mark "Rain Man" Dennehy, Ham Radio : EI5EDB (2m FM only) :-(
Engineering Undergrad, Internet : Mdennehy@Unix2.tcd.ie
Trinity College Dublin. Telepathy : Mdennehy@Mars.Red.Planet

Date: Tue, 23 Nov 1993 22:40:44 GMT
From: library.ucla.edu!agate!iat.holonet.net!pubcon.fort-worth.tx@network.ucsd.edu
Subject: swr protection project
To: ham-homebrew@ucsd.edu

i would think if youre only using 1 watt, you could use a resistor
whose power rating exceeds that by 3 or so and you would not have
anything to worry about. in such a case, if all the power were
reflected back to the transmitter, you should have less than two watts
there maximum. does this make sense to anyone but me? 73 and good luck.
b. wb5kxw

Date: Mon, 22 Nov 93 21:04:35 GMT
From: ncrigw2.ncr.com!ncrhub2!torynews!kevin@uunet.uu.net
To: ham-homebrew@ucsd.edu

References <931109.82953.EDELLERS@delphi.com>, <2brk68\$qh5@reznor.larc.nasa.gov>,
<FAUNT.93Nov17151042@netcom2.netcom.com>e

Subject : Re: Phase-lock to WWV ?

In article <FAUNT.93Nov17151042@netcom2.netcom.com> faunt@netcom2.netcom.com (Doug Faunt N6TQS 510-655-8604) writes:

>
>His clocks at the NIST in Boulder are across the hall from the atomic
>clock that is the primary standard, and run all the time. They are
>calibrated by the atomic standard, when it runs, which is relatively
>seldom.
>73, doug

Oh no! You mean the WWV clock I have heard for the last 20+ years aren't tied directly into the atomic standard? I'm shattered, having had this image in my head for all this time of some titanium-hulled device on a marble slab in a sealed vault to which WWV clock was attached. Funny how images like that, no matter how ludicrous, remain with us as long as there's no reality to displace them.

--

Kevin Sanders, KN6FQ
kevin.sanders@torreypinesca.ncr.com
kevin%beacons@cyber.net

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